REMARKS

Claims 1-32 were examined in the June 13, 2007 Office Action. The Drawings are objected to because of prior art labeling. Claim 4 is objected to due to a clarity issue. Claims 1, 2, 4-10, 13, 16-18, 20, 25 and 32 are rejected as obvious over *Lin* (U.S. Patent No. 6,944,266) ("*Lin*") in view of *Srinivasan* (U.S Publication No. 2004/0170381 A1) ("*Srinivasan*"). Claims 3, 11, 12, 14, 19, 21-24 and 26-30 are rejected as obvious over *Lin* in view of *Srinivasan* as applied to claims 1, 2, 4-10, 13, 16-18, 20, 25 and 32 and further in view of *Boyce* (U.S. Patent No. 5,887,115) ("*Boyce*"). Claims 15 and 31 are rejected as obvious over *Lin* in view of *Srinivasan* and *Boyce* as applied to claims 3, 11, 12, 14, 19-24 and 26-30 and further in view of *Fedele* (U.S. Patent No. 5,920,354 A) ("*Fedele*"). Claims 4 and 20 are cancelled and new claims 33-41 are added above. Reconsideration of the objections and rejections is requested in view of the above amendments and the remarks which follow.

A. Objection to the Drawings is Addressed.

Replacement drawings of Figs. 1 and 2 include a "PRIOR ART" legend. Withdrawal of the objection is requested.

B. Objection of Claim 4 is Addressed.

Claim 4 is herein cancelled without prejudice rendering the objection moot. Withdrawal of the objection is requested.

C. Rejection of Claims

Applicant herein amends claims 1, 17, and 32 and respectfully traverses the prior rejections. Claims 4 and 20 are cancelled without prejudice and no new claims are added. These changes are believed to not introduce new matter, and their entry is respectfully requested. The claims have been amended to expedite the prosecution and issuance of the application. In making this amendment, the Applicant has not and is not narrowing the scope of the protection to which the Applicant considers the claimed invention to be entitled and does not concede, directly or by implication, that the subject matter of such claims was in fact disclosed or taught by the cited prior art. Rather, the Applicant reserves the right to pursue such protection at a later point in time and merely seeks to pursue

protection for the subject matter presented in this submission.

D. Obviousness Rejection of Claims 1, 2, 4-10, 13, 16-18, 20, 25 and 32 over *Lin* in view of *Srinivasan* and *Venugopal* is Addressed.

Claims 1, 2, 4-10, 13, 16-18, 20, 25 and 32 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Lin* in view of *Srinivasan*. This rejection is respectfully traversed. The Office Action relies on *Lin* to teach the generation of coefficients and thereafter subjecting those coefficients to quantization. Recognizing that *Lin* fails to teach dithering, *Srinivasan*, at paragraphs [0015], [0068] and [0087-0089] is relied upon, but fails to teach or suggest the claimed method of conversion.

Claim 1, (and claims 17 and 32 in varying language) differentiate between conditions when a coefficient after quantization is equal to zero and when it is in a non-zero state. According to the claimed invention, when the quantized coefficient is zero, a dither signal is not added. Rather, the undithered signal is quantized. However, when it is found that the quantized coefficient holds a non-zero value, the method returns to the original coefficient, adds a generated dither signal, and thereafter generates a dithered quantized signal.

As recognized in the Office Action, *Srinivasan* compensates for lost energy for coefficients set to zero. As is described in paragraph [0091] of *Srinivasan* "all of the coefficients whose values are zero" are modified by adding the dither signal. Thus, *Srinivasan* teaches away from the present invention, which recognizes the distinction between zero and non-zero quantized signals and applies a dither signal selectively. *Srinivasan* offers no comparison step or analysis of the quantized coefficient and cannot read on the present invention.

As claims 1, 17 and 32 are deemed patentable over *Lin* in view of *Srinivasan,* claims 2, 4-10, 13, 16, 18, 20 and 25 that depend therefrom are also deemed patentable. Withdrawal of the rejection is respectfully requested.

E. Obviousness Rejection of Claims 3, 11, 12, 14, 19, 21-24 and 26-30 over *Linl* and *Srinivasan* and further in view of *Boyce* is Addressed.

The rejection of claims 3, 11, 12, 14, 19, 21-24 and 26-30 as obvious over *Lin* in view of *Srinivasan* and further in view of *Boyce* are respectfully traversed. *Boyce* fails to rectify the deficiencies of *Lin* and *Srinivasan* and so claims 3, 11, 12, 14, 19, 21-24 and 26-30, which each depend directly or

indirectly from claim 1, 17 or 32, are therefore patentable over *Lin* in view of *Srinivasan* in further view of *Boyce*. Reconsideration and withdrawal of the rejections are respectfully requested.

F. Obviousness Rejection of Claims 15 and 31 over *Lin*, *Srinivasan*, and *Boyce* and further in view of *Fedele* is Addressed.

Similarly, the rejection of claims 15 and 31 as obvious over *Lin, Srinivasan* and *Boyce* and further in view of *Fedele* is respectfully traversed, as *Fedele* fails to resolve the lack of teachings of *Lin, Srinivasan,* and *Boyce*. Reconsideration and withdrawal of the rejections are respectfully requested.

G. New Claims 33-41.

New independent claim 33 recites a method of non-subtractive dithering, with support found beginning at pages 23 and 24 of the specification and in FIG. 6. According to this aspect of the invention, when a dither signal such as noise having specific statistical characteristics related to the nature of the signal being processed, is injected upstream of a quantizer in order to pre-compensate the further error expected to be generated by a re-quantizer, no correction is applied to the inverse quantized signal.

As noted in the Office Action at page 4, *Lin* fails to disclose generating or adding a dither signal before quantization. According to the Office Action at page 4, *Srinivasan* does teach adding a dither signal to a coefficient before quantization (but only when the quantized coefficient is different from zero), and fails to teach subjecting a quantized signal to inverse quantization (page 9). For this reason, the Office Action relies on *Boyce* to teach inverse quantization and subtracting the dither signal from a signal subject to inverse quantization. This clearly teaches away from the non-subtractive method of claim 33.

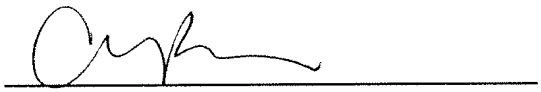
Accordingly, independent claim 33, and new dependent claims 34-41, are patentably distinguishable over the references of record.

H. Conclusion.

Pending claims 1-3, 5-19, 21-32 and 33-41 are now believed to be in form for allowance and such action is respectfully requested. Should any issues remain, the Examiner is kindly asked to telephone the undersigned.

Please charge the fees for excess claims and any other fees associated with this filing to Deposit Account No. 50-1123.

Respectfully submitted,



September 12, 2007

Carol W. Burton, Reg. No. 35,465
Hogan & Hartson L.L.P.
1200 17th Street, Suite 1500
Denver, Colorado 80202
Telephone: (303) 454-2454
Facsimile: (303) 899-7333